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REMARKS

This is a full and timely response to the non-final Official Action mailed July 25, 2006. Reconsideration of the application in light of the above amendments and the following remarks is respectfully requested.

Claim Status:

Claims 19-54 were withdrawn under the previous imposition of a Restriction Requirement. These claims are now cancelled in the present paper. The withdrawn claims are cancelled without prejudice or disclaimer. Applicant reserves the right to file any number of continuation or divisional applications to the withdrawn claims or to any other subject matter described in the present application.

By the present amendment, new claims 55-67 have been added. Thus, claims 1-18 and 55-67 are currently pending for further action.

Allowable Subject Matter:

The recent Office Action indicates that claims 3 and 10-13 contain allowable subject matter and would be allowable if presented in independent form. Applicant wishes to thank the Examiner for this helpful identification of allowable subject matter.

Prior Art:

Claims 1, 2, 4-9 and 14-18 were rejected under 35 U.S.C. § 103(a) over the combined teachings of U.S. Patent App. Pub. No. 2002/0172871 to Schucker ("Schucker") and U.S. Patent App. Pub. No. 2001/0014420 to Takeuchi et al. ("Takeuchi"). For at least the following reasons, this rejection is respectfully traversed.

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Claim 1 recites:

A method of manufacturing an electrolyte comprising:  
coupling a substrate to a charged electrode; and  
*electrodepositing* a polymeric electrolyte on said substrate.  
(Emphasis added).

In contrast, the combination of prior art cited against claim 1 fails to teach or suggest a method in which a polymeric electrolyte is formed by "*electrodepositing*" the electrolyte on a substrate. "Electrodeposition" is defined in Applicant's originally-filed specification at, for example, paragraph 0019.

According to the Office Action, Schucker "teaches a method of manufacturing a composition electrolyte .... However, Schucker [does] not teach specifically [that] the ionic conductive composition is a polymeric electrolyte." (Action of 7/25/06, p. 1). Thus, Schucker does not teach a polymeric electrolyte and, therefore, clearly cannot teach or suggest "*electrodepositing* a polymeric electrolyte on said substrate." (Emphasis added).

Consequently, the Office Action, cites to the teachings of Takeuchi in combination with Schucker. According to the Office Action, "Takeuchi et al. teach [that] an ionic conductive material for use as a membrane in a fuel cell can be an inorganic compound such as NASICON or a polymeric compound." (Action of 7/25/06, p. 1).

Assuming the Office Action is correct in this characterization of Takeuchi, Takeuchi still does not teach or suggest that a polymeric electrolyte is formed by "*electrodepositing* a polymeric electrolyte on said substrate." (Emphasis added). Takeuchi does not appear to teach or suggest electrodepositing a polymeric electrolyte on a substrate. Neither does Schucker.

No prior art reference of record appears to teach or suggest the claimed method including "*electrodepositing* a polymeric electrolyte on said substrate." (Emphasis added).

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"To establish prima facie obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. *In re Royka*, 490 F.2d 981, 180 USPQ 580 (CCPA 1974)." M.P.E.P. § 2143.03. Accord. M.P.E.P. § 706.02(j). For at least these reasons, the rejection based on the combination of Schucker and Takeuchi should be reconsidered and withdrawn.

Additionally, the various dependent claims of the application recite subject matter that is further patentable over the prior art of record. Specific, non-exclusive examples follow.

Claim 2 recites "wherein said substrate comprises a conductive porous substrate." In this regard, the Office Action argues that Schucker teaches a porous substrate, "such as yttria-stabilized zirconia, [that] is an ionic conductive material." (Action of 7/25/06, p. 2). However, claim 2 does not recite an *ionic* conductive material. Rather, claim 2 recites that the substrate is conductive, meaning electrically conductive. (Applicant's specification, paragraph 0039). This subject matter is not taught or suggested by the prior art. For at least this additional reason, the rejection of claim 2 should be reconsidered and withdrawn.

Claim 5 recites:

wherein said electrodepositing a polymeric electrolyte further comprises:  
disposing said porous substrate and said charged electrode in a polymeric electrolyte solution containing charged polymeric electrolyte particles; and  
generating an electric field in said polymeric electrolyte solution;  
wherein said electric field accelerates charged polymeric electrolyte particles to said porous substrate.

Claims 10 and 16 recite similar subject matter.

In contrast, Schucker and Takeuchi fail to teach or suggest this subject matter.

Moreover, the Office Action fails to indicate how or where the cited prior art teaches the

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subject matter of claims 5, 10 and 16. For at least this additional reason, the rejection of claims 5, 10 and 16 should be reconsidered and withdrawn.

Claim 6 recites "wherein said charged polymeric electrolyte particles further comprise perfluorosulfonate ionomer particles." Claims 11 and 17 recite similar subject matter.

In contrast, Schucker and Takeuchi fail to teach or suggest this subject matter. Moreover, the Office Action fails to indicate how or where the cited prior art teaches the subject matter of claims 6, 11 and 17. For at least this additional reason, the rejection of claims 6 and 11 should be reconsidered and withdrawn.

Claim 8 recites "further comprising removing deposited perfluorosulfonate ionomer particles from an outer surface of said porous substrate." The recent Office Action concedes that Schucker and Takeuchi fail to teach this subject matter, but nevertheless argues that such a method step would have been obvious. (Action of 7/25/06, p. 2). Applicant respectfully disagrees and requests that prior art actually teaching the method of claim 8 be made of record or the rejection of claim 8 withdrawn.

Where the examiner relies on a single reference under § 103, it is insufficient to merely state that it would be obvious, or a mere matter of design choice, to modify the disclosure to include the features of the claimed invention. In re Mills, 16 USPQ2d 1430, 1432 (Fed. Cir. 1990). "To establish prima facie obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. In re Royka, 490 F.2d 981, 180 USPQ 580 (CCPA 1974)." M.P.E.P. § 2143.03. (emphasis added). Accord. M.P.E.P. § 706.02(j). For at least these additional reasons, the rejection of claim 8 is insufficient and should be withdrawn.

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Conclusion:


The newly added claims are thought to be patentable over the prior art of record for at least the same reasons given above with respect to the original independent claims.

Therefore, examination and allowance of the newly added claims is respectfully requested.

For the foregoing reasons, the present application is thought to be clearly in condition for allowance. Accordingly, favorable reconsideration of the application in light of these remarks is courteously solicited. If the Examiner has any comments or suggestions which could place this application in even better form, the Examiner is requested to telephone the undersigned attorney at the number listed below.

Respectfully submitted,

DATE: October 25, 2006

  
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